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NIXON & VANDERHYE, PC			DEWS, BROOKE J	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/511,905	GEORGALAS ET AL.
	Examiner	Art Unit
	Brooke J. Dews	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 October 2004.
- .2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-23 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10/20/2007 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20050608</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

Computer system operating method, involves searching rule store given with user interface for rule that links requirements of received request from client with handler program and running program to relate with data storage system

Drawings

2. The drawings are objected to because black-boxes (301-309 and 400-421) should be labeled with appropriate function (i.e. notification server 305, client 307, notification server program 402, receiver 403, notification message 419, and so on) to better illustrate the claimed invention to the public. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet"

or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 recites the limitation "further handler program" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether this "further handler program" is a different handler program or the one mentioned in claim 7.

Claim 22 recites the limitation "the antecedent step" in line 15 page 7 of claims sheet. There is insufficient antecedent basis for this limitation in the claim. It appears that applicant is trying to state, "the method of claim 22 according to claim 21 further comprises storing one or more rules in said rule store", however the use of the phrase "the antecedent step" is inappropriate considering that "an antecedent step" is nowhere mentioned in claim 21, and the phrase is redundant of the previous statement. Correction/Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 7, 10, 11, 15, 16, 19, 20-23 are rejected under 35 U.S.C. 102(b) as being taught by Paul Toth (US Publication2001/0051942), hereafter Toth.

Regarding claim 1 Toth discloses a method of operating a computer system (**Figure 1**) to provide a user interface (**user interface 124**) to a data storage system (**via computer 102**), said computer system including a rule store (**database 118**) storing one or more rules, said method comprising the steps:

providing a user interface (**interface 124 via user interface module 120**) to said rule store enabling user configuration (**via start, add, select or remove action; Figures 3-6**) of said rule store with one or more rules (**via a value or range of values; Paragraph [0010]**), each rule including information relating to a handler program (**Paragraph [0026]**), said handler program (**via web browser**) being associated with one or more user requirements and being operable to interact with said data storage system in accordance with said user requirements; (**Paragraph [0008]**)

receiving a request (**via query**) detailing one or more user requirements (**via an object, attribute, or corresponding attribute value**); (**Paragraph [0027]**)

responsive to receipt of said request:

- a) searching said rule store (**database 118**) (**via database management system 116**) for a rule associating said one or more user requirements of said received request with a handler program;
- b) running said handler program (**via operating system 114**) to interact with said data storage system (**102**).

Claim 2 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method, wherein said information relating to a handler program (**via web browser**) comprises the name and the location of the handler program.

Claim 3 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method, wherein said information relating to a handler program (**web browser**) comprises the handler program itself (**via internet browser software**). (**Paragraph [0040]**)

Claim 7 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method wherein said request comprises a request to store (**via computer readable medium 106**) a handler program (**sequences of instructions for effecting the plurality of search actions and other processes**). (**Paragraph [0024]**)

Claim 10 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method wherein said rules are expressed in the form of text. (**Paragraph [0027]**)

Claim 11 is rejected for the reasons set forth hereinabove for claim 10, and further Toth discloses a method wherein said rules are reparable (**refinable**) using a text editor (**via an operator field 150**). (**Paragraph [0028]**)

Claim 15 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method wherein said rule store user interface is restricted to a certain class of user (**via user's access level**). (**Paragraph [0041]**)

Claim 16 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a method wherein the data storage system user interface is available to a different set of users (**non-administrative “depending on users access level”**) from those able to modify said rules in said rule store (**administrator**). (**Paragraph [0041]**)

Regarding claim 19 Toth discloses a computer system (**Figure 1**) operable to provide a user interface (**user interface 124**) to a data storage system (**via computer 102**), said computer system comprising:

a data storage system (**via computer 102**);

a rule store (**via database 118**);

a user interface (**via user interface module 120**) to said rule store operable to enable a user to configure (**via start, add, select or remove action; Figures 3-6**) said rule store with one or more rules (**via search actions**), wherein each rule includes information relating to a handler program, said handler program being associated with one or more user requirements and being operable to interact with said data storage system in accordance with said user requirements; (**Paragraph [0026]**)

request receiving means (**via display 112**) arranged in operation to receive a request detailing one or more user requirements; (**Paragraph [0025]**)

rule store searching means (**database management system 116**)(**Directory Service**)operable to search said rule store for a rule associating said one or more user requirements of said received request with a handler program;

handler program running means (**via operating system 114**) operable to run said handler program to interact with said data storage system.

Claim 20 is rejected for the reasons set forth hereinabove for claim 1, and further Toth discloses a digital data (**computer readable medium 106**) carrier carrying a program of instructions executable by processing apparatus. (**Paragraph [0024]**)

Regarding claim 21 Toth discloses a method of operating a computer system (**Figure 1**) to provide a user interface (**user interface 124**) to a data storage system (**via computer 102**), said computer system including a rule store (**via database 118**) storing one or more rules, each rule associating a handler program (**Paragraph [0026]**) with one or more request characteristics, said method comprising:

providing a user interface (**via user interface module 120**) to said rule store (**via database 118**) enabling the modification of said rules in said rule store;

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receiving a request (**via a query**) having one or more request characteristics (**via an object, attribute, or corresponding attribute value**); (**Paragraph [0027]**)

responsive to the receipt of said request:

a) finding a rule (**via database management system 116**) in said rule store (**via database 118**) associating a handler program with the one or more characteristics of said received request;

and b) running (**via operating system 114**) said handler program to interact with said data storage system.

Claim 22 is rejected for the reasons set forth hereinabove for claim 21, and Toth further discloses a method further comprising the antecedent step of storing (**recording**) one or more rules(**search action**) in said rule store. (**Paragraph [0028]**)

Regarding claim 23 (It appears that applicant would like to invoke 35 U.S.C. 112 6th paragraph using “means plus function” limitations, however because means, found in line 6 of claim 23, is not recited as a “means for” performing a specified function, examiner is not restricted to the corresponding structure provided in applicant’s specification.)

Toth discloses a computer system (**Figure 1**) for providing a user interface (**interface 124 via user interface module 120**) to a data storage system (**via computer 102**) said computer system comprising:

a data storage system (**via computer 102**);

storing means (**via database 118**) arranged in operation to store one or more rules, each rule associating a handler program (**Paragraph [0026]**) with one or more request characteristics;

means arranged in operation to provide a user interface (**via user interface module 120**) to said rule store enabling the modification of said rules (**via search actions**) in said rule store;

receiving means (CPU 104/ 112) arranged in operation to receive a request (**query**) having one or more request characteristics (**attributes**): (**Paragraph 0027]**)

finding means (**via database management system 116**) arranged in operation to find a rule in said rule store associating a handler program with the one or more characteristics of said received request;

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and running means (**via operating system 114**) arranged in operation to run said handler program to interact with said data storage system.

5. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Paul Toth (US Publication2001/0051942), hereafter Toth in view of John K. Ahlstrom et al. (US Patent 6327618), hereafter Ahlstrom).

Claim 4 is rejected for the reasons set forth where Toth discloses claim 1, however Toth does not explicitly disclose a method further comprising the step of running a default handler program to interact with said data storage system if no rule associating a handler program with the one or more user requirements of said received request is found.

Ahlstrom discloses a method further comprising the step of running a default handler program (**via error processing steps**) to interact with said data storage system if no rule associating a handler program with the one or more user requirements (**policy not properly defined**) of said received request is found. (**Column 9 line 66-Column 10 line 5**)

Ahlstrom and Toth are analogous art because they are from the same field of endeavor involving involving query refining.

It would have been obvious to one having ordinary skill in the art to combine Ahlstrom's default handler program with Toths data storage system. The motivation being to interrogate devices to obtain statistics about the network to which they are attached, and to control such devices by changing routes and configuring network interfaces.

6. Claims 5, 6, 8, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul Toth (US Publication2001/0051942), hereafter Toth in view of Nektarios Georgalas (A Framework that uses Repositories for Information Systems and Knowledge Integration), hereafter Georgalas.

Claim 5 is rejected for the reasons set forth where Toth discloses claim 1, however Toth does not explicitly disclose a method, wherein said rule store user interface provision step comprises storing a rule associating predetermined user requirements with a handler program executable to interact with said rule store to introduce a further rule contained within said request into said rule store.

Georgalas discloses storing a rule associating predetermined user requirements with a handler program (**Page 4 lines 13-14 and page 6 line 11-17**) executable to interact with said rule store to introduce a further rule (**new source**) contained within said request into said rule store (**Page 7 lines 1-9**).

Georgalas and Toth are analogous art because they are from the same field of endeavor involving database or file accessing, where the retrieval of data stored in a database or as computer files, where a file is defined as a named collection of data.

It would have been obvious to one having ordinary skill in the art at the time of invention to combine Georgalas' rule storing with Toth's data storage system. The motivation being provide unified access to the contents of the repository and other operational data stores, to provide smoothly integrated information systems. (**Page 2 line 8-10 of Georgalas**)

Claim 6 is rejected for the reasons set forth hereinabove for claim 5, and further Georgalas discloses a method according to wherein said further rule (**new source**) replaces an existing rule (**via rule-based queries**). (**Page 7 lines 10-23**)

Claim 8 is rejected for the reasons set forth hereinabove for where Toth discloses claim 7, however Toth does not explicitly disclose a method wherein said further handler program comprises a default handler program

Georgalas discloses a method wherein said further handler program comprises a default handler program (**via generic component**). (**Page 3 paragraph 3**)

Georgalas and Toth are analogous art because they are from the same field of endeavor involving database or file accessing, where the retrieval of data stored in a database or as computer files, where a file is defined as a named collection of data.

It would have been obvious to one having ordinary skill in the art at the time of invention to combine Georgalas' default program with Toth's data storage system. The motivation being provide unified access to the contents of the repository and other operational data stores, to provide smoothly integrated information systems. (**Page 2 line 8-10 of Georgalas**)

Claim 9 is rejected for the reasons set forth where Toth discloses claim 1, however Toth does not explicitly disclose a method wherein said request contains a rule associating a handler program with the user requirements of said received request (**via queries**) (**Page 2 lines 15-25**).

Georgalas discloses a rule associating a handler program with the user requirements of said received request (**via queries**). (**Page 2 lines 15-25**)

Georgalas and Toth are analogous art because they are from the same field of endeavor involving database or file accessing, where the retrieval of data stored in a database or as computer files, where a file is defined as a named collection of data.

It would have been obvious to one having ordinary skill in the art at the time of invention to combine Georgalas' association rule with Toth's data storage system. The motivation being provide unified access to the contents of the repository and other operational data stores, to provide smoothly integrated information systems. (**Page 2 line 8-10 of Georgalas**)

Claim 12 is rejected for the reasons set forth where Toth discloses claim 1, however Toth does not explicitly disclose a method wherein said rules are indicative of a time after which said rules should no longer be applied

Georgalas discloses a method wherein said rules are indicative of a time after which said rules should no longer be applied (**the customized components are specialized to perform application specific task, and not be re-used**). (**Page 4 Paragraph 4**)

Georgalas and Toth are analogous art because they are from the same field of endeavor involving database or file accessing, where the retrieval of data stored in a database or as computer files, where a file is defined as a named collection of data.

It would have been obvious to one having ordinary skill in the art at the time of invention to combine Georgalas' association rule with Toth's data storage system. The motivation being

provide unified access to the contents of the repository and other operational data stores, to provide smoothly integrated information systems. (**Page 2 line 8-10 of Georgalas**)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 13, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paul Toth (US Publication 2001/0051942), hereafter Toth in view of Nektarios Georgalas (US Patent 7019740), hereafter Georgalas1.

Claim 13 is rejected for the reasons set forth hereinabove for claim 1, and further discloses a method wherein said data storage system comprises a plurality of databases.

Georgalas1 discloses a method wherein said data storage system (**202-208 via network 210**) comprises a plurality of databases (**via 300, 308, 316; Figure 3A-C**). (**Figure 2**)

Georgalas1 and Toth are analogous art because they are from the same field of endeavor involving query refining, where methods of expanding or limiting access to and retrieve data or files by techniques including fuzzy search, ranking or weighing, relevance, thesaurus, and concept retrieval are used.

It would have been obvious to one having ordinary skill in the art to use the plurality of databases in Georgalas1 in the data storage system of Toth. The motivation being to allow for an expanded query functionality. (**Column 3 line 65-Column 4 line 5 of Georgalas1**)

Claim 14 is rejected for the reasons set forth hereinabove for claim 13, and Georgalas1 further discloses a method wherein said databases are of a different format to each other (**heterogenous databases**). (**Column 2 line 19-25**)

Claim 17 is rejected for the reasons set forth hereinabove for claim 1, and further discloses a method wherein said computer system comprises a plurality of computers in communication with one another, the handler programs being run on a different computer to the one that receives said request.

Georgalas1 discloses a method wherein said computer system (**Figure 2**) comprises a plurality of computers (**200-208**) in communication with one another, the handler programs (**API module 306, 314, 322**) being run on a different computer to the one that receives said request. (**Figure 3A-C**)

Georgalas1 and Toth are analogous art because they are from the same field of endeavor involving query refining, where methods of expanding or limiting access to and retrieve data or files by techniques including fuzzy search, ranking or weighing, relevance, thesaurus, and concept retrieval are used.

It would have been obvious to one having ordinary skill in the art to use the plurality of computers in Georgalas1 in the data storage system of Toth. The motivation being to allow for an expanded query functionality. (**Column 3 line 65-Column 4 line 5 of Georgalas1**)

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Claim 18 is rejected for the reasons set forth hereinabove for claim 1, and further discloses a method wherein said computer system comprises a plurality of computers in communication with one another, the rule store being on a different computer to the one that receives said request.

Georgalas1 discloses a method wherein said computer system (**Figure 2**) comprises a plurality of computers (**200-208**) in communication with one another (**via network 210**), the rule store (**304, 312, 320, 326**) being on a different computer (**202-208**) to the one that receives said request (**query**).

Georgalas1 and Toth are analogous art because they are from the same field of endeavor involving query refining, where methods of expanding or limiting access to and retrieve data or files by techniques including fuzzy search, ranking or weighing, relevance, thesaurus, and concept retrieval are used.

It would have been obvious to one having ordinary skill in the art to use the plurality of computers in Georgalas1 in the data storage system of Toth. The motivation being to allow for an expanded query functionality. (**Column 3 line 65-Column 4 line 5 of Georgalas1**)

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brooke J. Dews whose telephone number is 571-270-1013. The examiner can normally be reached on M-Th 7:30-5:00, alternate F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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